

STATEMENT OF THE CLAIMS

1. – 6. (canceled)

7. (original) An apparatus for processing a semiconductor wafer, comprising:

- a) a processing chamber having an inner surface; and
- b) a mandrel within said chamber and adapted to receive and hold the semiconductor wafer,

at least one of said inner surface and said mandrel including a protective coating comprising a polycrystalline diamond film material made by chemical vapor deposition having a thermal conductivity greater than 1000 W/mK and a Raman Full Width at Half Maximum of less than 10 cm^{-1} , said diamond film material having a thickness not greater than 100 microns.

8. (original) A apparatus according to claim 7, wherein:

said processing chamber includes a heat source and at least one window which is substantially transparent to heat from said heat source, at least a portion of said window being provided with said protective coating.

9. (original) A processing chamber according to claim 7, wherein:

said mandrel is adapted to rotate about an axis within said chamber.

10. (original) A processing chamber according to claim 7, wherein:

said protective coating has a Raman Full Width at Half Maximum of less than 5 cm^{-1} .

11. - 18 (canceled)